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IN THE DOMAIN OF THE HUDSON'S BAY COMPANY*

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AFTER sixteen consecutive days of canoeing, we came suddenly in view of the French post near Moose Factory, located on an island in Moose river 12 miles from its mouth. We landed there, thinking it to be the post of the Hudson's Bay Company. A mile away on Moose Island is the administrative headquarters of the Hudson's Bay Company for the bay, which we reached an hour later. It was established in 1675, and is operated today in much the same fashion as for the past 240 years. Some of the present buildings and parts of buildings run back to the period of our American revolution. We here first experienced the charming and unique atmosphere of the Hudson's Bay posts; a charm which we also felt at each of the succeeding posts, although perhaps in a less degree. The small cultivated fields, substantial houses, with high hewn picket fences, church, rectory, school house, stores, warehouses, carpenter shop, saw mill, the great flagstaff guarded by cannon, the general air of permanence and respectability, all contrast vividly with the conditions in the wilds about. On landing, we were greeted by Mr. McAlpine, the manager of the post, and the foreman, Mr. McLeod, who, as is the custom with whites at all posts, appeared neatly dressed even to spotless collars and straw hats.

MOOSE FACTORY

Space forbids any detailed description of Moose. At every turn one sees features of interest. The place includes some 30 or 40 buildings, laid out in irregular streets, with a fringe of Indian tepees in the adjacent fields, with a permanent population of about 100 and a floating or hunting population of several hundred. It is a fully organized community with a post manager at the head of its temporal affairs, and a bishop, when in residence, at other times his assistant, in charge of its spiritual affairs. Two services are held Sundays which are well attended, and during the summer, when many Indians are at the post, there are daily services. Sunday services are conducted in English, and repeated in Indian. The first sermon we heard contained many references to the dangers to the young to be met with on the "streets of Moose," bringing us to a realization of the fact that we were in an organized community which regarded itself as a village or town. We subsequently found that at other points on the Bay the "streets of Moose" were regarded as a combination of Broadway and the Bowery.

*From "A Summer and a Winter on Hudson Bay" by C. K. and A. F. Leith. Privately published.

Ruperts House

Ruperts House, the next post visited, on the southeast corner of the bay, is of special interest. This is nearly on the site of old Fort Charles, the first of the Hudson's Bay Company posts established in 1670. It was here also that Henrik Hudson was supposed to have wintered when he first reached the bay in 1610. It is one of the most important posts on the bay, being the distributing point for a chain of five posts, in the interior. We were the second party of visitors in several years at Ruperts, while Nitchicun, 500 miles distant in the interior, has not seen a white man since 1870.

The Hudson's Bay Company

The Hudson's Bay posts visited were strikingly similar in architecture and atmosphere to Moose Factory. Indeed, this similarity extends throughout fourteen posts which it has been my privilege to visit this and other summers. The comfortable house of the manager, with its well-kept yard, hewn picket fence, huge gate, usually a garden plot for potatoes and other hardy vegetables, and buildings and pens for cows and chickens, form the central feature of most of the posts. Near it is the store, containing everything necessary for the needs of the country, from pork and flour to sewing machines and phonographs. The large warehouses are conspicuous features. At a central point, a high flagstaff is to be seen on which the Hudson's Bay flag is displayed on approach or departure of visitors. The complete control of the post manager over the affairs of his subordinates and dependent Indians, together with the regularity of the day's proceedings, marked by the bell, give an air of a certain military precision to the place quite at variance with the straggling architecture and the appearance of some of the inhabitants.

The Hudson's Bay region has been under the almost exclusive control of the Hudson's Bay Company for two hundred and forty years. A few brief attempts at competition have hitherto met with failure, but for the past few years Revillon Freres, of Paris, have been making a strong attempt to gain a foothold and have accomplished more than any of their predecessors. The Hudson's Bay Company has from the first devoted its attention exclusively to the fur trade, and has discouraged all efforts on the part of its own employes or others to develop other resources. So far have they gone in this direction as to discourage even minor changes in the manner of conducting their business, such as introducing more satisfactory means of travel and communication, which in their judgment would tend to take attention away from their principal business of securing fur. The large blank areas on existing maps of the region about Hudson's Bay are eloquent testimony of the attitude of the Company in this regard. There is today, outside of the Hudson's Bay posts and the posts of their competitors, Revillon Freres, so far as the writer knows, not one habitation of wood or stone. Probably nowhere else in the world could there be cited a similar case of arrested development of a great region under control of white people. The Company was organized to trade

in fur, and the characteristic British conservatism has kept it strictly to its text. The stock is in strong financial hands in England, largely in the nobility, whence a conservative attitude would be expected. The Company doubtless foresees that as soon as the region opens up for anything else which will bring in a population not giving its attention to trapping, its primary business of buying furs will rapidly disappear.

Perusal of the daily journals kept at each of the Hudson's Bay Company's posts brings vividly to mind the permanence of the institution. Wishing to know the probable condition of the weather for some of our trips, we were able to ascertain exactly what had happened in the way of weather, hunting, and other incidents the same date the year before, two years before, fifty years or even one hundred years before, and so far as the nature of the record is concerned and the character of the events noted there is little evidence of change in conditions.

The Hudson's Bay Company controls fifteen posts on Hudson Bay, located usually near the mouth of some river. Each post has its post manager, foreman, servants (natives and mixed breeds) from one or two to twenty, depending on the importance of the post and its quota of natives dependent upon the post. It is only during the summer, when furs are not in prime, that most of the people are to be seen about a post. Then the Indians and their families come in with their furs of the preceding winter, trade for their supplies, and have a period of social relaxation before returning to their camp grounds in the wilderness. Then the neighborhood presents lively scenes, the buildings and yards being surrounded by a fringe of tents of the visiting Indians. During the winter the Indians are scattered about the country in small groups within a radius of 150 miles or more from the post, and at the post there are only the people immediately concerned in its operation, together usually with a considerable number of natives incapacitated for trapping by age or infirmity. The total population dependent upon each of the posts ranges from fifty to eight hundred or nine hundred people.

Relations of Hudson's Bay Company to Natives

The unit of trade is the "beaver," an arbitrary value represented by a brass token issued by the Hudson's Bay Company, nominally worth a dollar, that is, a dollar in trade. In cash a beaver is worth fifty cents. When, therefore, a native is paid a beaver, and takes it out in trade, as he must, he really gets something in the neighborhood of forty cents in value.

Each Indian has a debt to the Company. When he buys his supplies for the year's hunting he is said to "get his debt." The size of the debt the Company will allow him depends somewhat upon his ability as a hunter. At the end of the year he turns in his furs in liquidation of his debt. Often he does not succeed in getting a surplus. The result is that the Company has a debt on the books for most of the Indians over whom it has control. On death or prolonged sickness the debt is wiped off.

None of the natives are independent. Attached to each of the posts are natives said to be well-to-do. These possess few evidences of worldly wealth beyond suitable clothes, substantial food, and good rifles and guns, but they have such credit with the Hudson's Bay Company as will enable them to buy certain articles they may need to help them live comfortably. This simply means that they have been sufficiently successful as hunters and have turned in enough furs to establish a certain prestige with the Company, and the Company treats them well as a reward for faithful services and as an incentive to others.

To the stranger on the Bay, at first thought, the native's lot does not seem an enviable one. The Indian is in a condition not far removed from slavery. With his best efforts he can secure for himself only food and clothes. He cannot secure independence. On the other hand, he is certain of a living if he is reasonably diligent in trapping; he will be taken care of in case of incapacitation; his family will not be allowed to starve, and above all, he is in a reasonably contented and happy frame of mind over the situation. He is better off than in the days of uncertain supplies, before the Hudson's Bay Company came, and he seemed to us better off and happier than most of our laboring people. While he undergoes hardships, he seldom endures the extremes of poverty and never feels that he is suffering injustice greater than that of his fellows; he is on a substantial social equality with the rest of the population, and altogether is a decent, self-respecting, efficient, and contented being.

The attitude of the Company toward the Indian is a curious combination of stern, relentless control with a sort of furtive kindliness. When an Indian is asked to do certain arduous work or make a dangerous trip, he has been taught to obey unquestioningly and to accomplish his mission at any cost of life or limb. He carries his message to Garcia without the prospect of being greeted as a hero on his return. If he fails to carry out his orders absolutely he will get no sympathy from either the Company or his friends. While traveling from post to post we had occasion to use a number of Indians who were picked out by the post manager to accompany us, sometimes on a trip which meant exposure and hardship for weeks; and while these Indians often disliked leaving a comfortable post and families to go off with strangers in whom they had no interest, there was never a murmur when once they had been selected to go.

About the posts the Indians are, for the most part, treated rather gruffly. Some post managers spend their time mostly at the house rather than at the store. The Indian wishing to trade, hangs around the kitchen door until he learns through the servants that the manager may be seen, then timidly knocks and comes in, hat in hand. The manager, after a time, looks up from his business or paper, or interrupts any conversation he may be carrying on and asks what is wanted, and if the Indian's credit is good, gives him an order

on the store for such things as he needs. The length of time the Indian is kept waiting and the graciousness of the post manager's behavior toward him are an excellent barometer of the Indian's standing with the Company and in the community.

By a combination of sternness and kindliness the Company has been able to foster a loyalty among its servants and natives which is very unusual in a commercial concern. This same loyalty is true of the post managers.

The Indians and the Huskies

The natives, both Indians and Huskies (Eskimos), show many shades of color, which fact may be correlated with the prevalence of Scotch and English names and characteristics. There is a strong family pride, much observance of form, and the language even shows Scotch modification, especially in inflection.

A universal habit on the Bay is to shake hands in meeting and parting. Wherever we stopped we found it necessary to shake hands with all members of the party, men, women, and children. Neglect of this duty was likely to be resented. In some cases, where fifty or more people were met simultaneously, the ceremony became a formidable one.

The natives work hard and lack what most of us would call the comforts and conveniences of life, but they and their ancestors have known no other way of living, and therefore do not miss the things we regard as desirable, if not essential. There is little social competition, for all are substantially on the same level. Their lives are not complicated by a multiplicity of interests and distractions, but are concentrated on the hunt which furnishes the wherewithal to live, and incidentally affords most of their pleasure. Their family life seems to the outsider remarkably happy, notwithstanding a common method of choosing mates which is often intensely practical and lacking in sentimental consideration. Mr. Nicolson, post manager for Ruperts House, told of an Indian from one of the interior posts coming to him just before our arrival, and after buying his supplies over the counter, added that he would like a wife. The post manager did not have one in stock, but not to be stumped, had a canvass made of the post, found a suitable woman, and before night had the pair wedded and started for their camp five hundred miles inland. That marriages so made could result satisfactorily is astonishing at first thought. I suspect the explanation lies largely in the unity of material interests in the family and the lack of outside distractions. From the start the entire energies of the family are devoted to making a living under strenuous conditions. The man kills the game and the woman skins it and prepares the fur and food from it. There is scarcely a day in which close cooperation is not necessary. In times of stress and adversity they must look only to themselves for help. The result is a close welding of interests and development of team work which enable them to cope with their many difficulties and which seem to make a contented, if not ideal family.

The Post Managers

The post managers warrant a bookful of character sketches. Usually of English or Scotch descent, they are selected when young men, and sent out to the Bay by the annual boat. For the first eight years they are not entitled to a furlough, and should they leave, forfeit some portion of their pay. After eight years service they are in a position to ask for a furlough, but as the rules of the Bay Company permit only one man in a district to be absent on furlough in any one year, the difficulty of getting away is so great that furloughs are few and short. It is not unusual to meet men who have not been out of the Bay in twenty-five years. One man, Mr. Jobson, the present manager of the East Main post, has not been away since his arrival there as a young man fifty years ago. The remuneration is small, usually $400 or $500, in exceptional cases $1,000 per annum, but their houses, supplies, and servants are paid for by the company, so there is little need for spending their salaries.

French Competition

I have referred to the competition started a few years ago by the Revillon Freres of Paris. Revillon Freres are reputed to be the largest finished-fur manufacturers in the world, and have stations for the collection of raw furs in many parts of the globe, including Asia and northern Europe as well as North America. The entrance of this firm into competition with the Hudson's Bay Company, therefore, probably begins what is perhaps the most serious competition which the Hudson's Bay Company has ever had. Since 1877, when the Hudson's Bay Company ceded to the Canadian government all its governmental rights in northern Canada, the company has had no official monopoly of the fur trade and has owned only a few acres immediately about its posts, maintaining its monopoly largely by the inertia of the business. Having been in control of the fur business for so many years, having developed a spirit of loyalty among the natives, having an extensive plant in a part of the country so inaccessible and so unfavorable to competition, it has been in a most impregnable position. Revillon Freres have, however, quietly and persistently developed their posts, have put capable men in charge, including a number of French army officers, have given every evidence that they are there to stay, and are making serious inroads into the native support of the Hudson's Bay Company. As yet their project has been a very expensive one, but the amount of fur which they are getting is increasing year by year and it seems not unlikely that they will prove themselves formidable rivals of the Hudson's Bay Company. The Hudson's Bay Company has hitherto felt strong enough to meet this competition without general raising of prices. The competition of the two companies has considerably improved the Indian's lot, as he feels that if not treated properly by one company he will be welcomed by the other.

INFLUENCE OF THE MOUNTAINS OF THE BRITISH ISLES UPON THEIR HISTORY

By Benj. A. Stevens, La Crosse, Wis.

THE highlands of Great Britain may be arbitrarily divided into four groups; the Scottish Highlands, the Pennine Range, the Cumbrian Mountains of the Lake Country, and the Cambrians or Welch Highlands. Of these, the Scottish Highlands are naturally divided into three sections: the North-West Highlands, lying to the northwest of Glenmore; the Highlands proper, which occupy all of the region north of the Midland Plain not included in the North-West Highlands; and the Southern Highlands, which lie to the south of the Midland Plain. Of these four great groups but two, the Scottish and the Welch Highlands, have exercised any marked influence upon the history of Great Britain. The other mountains, the Pennines and the Cumbrians are too narrow or too accessible from the lowlands to give rise to any peculiar historic situations of moment.

The characteristics of the Welch and Scottish Highlands which caused them to become important as influences upon the history of Great Britain are their isolation, their infertile soil and unfavorable climate, and the strategic position of the avenues of approach to them from the lowlands.

During the early periods of human life on the island of Britain, that is, during prehistoric times, the above characteristics of the highlands of the North and of the West had a negative influence upon the inhabitants of the island. Having at their disposal extensive lowland plains where the soil was productive and the climate fairly favorable, the Ivernians, who probably were the first settlers of Britain, shunned the mountainous regions where the climate was disagreeable, the soil thin and unproductive, and the freedom of movement and communication interrupted by the frequent barriers of high hills. Nothing but the appearance of a force which would render the more favored lowland districts less desirable to live in than the mountain districts, could drive the early inhabitants of Britain into the highlands. Such a force finally appeard in the form of invading bands of Celts who were migrating from the mainland of Europe.

With the appearance of this superior race of people began the positive influence of the mountains upon the history of Britain. Unable to withstand the invader, the Ivernians retreated to the North and to the West leaving their old homes in the lowland areas in the hands of the Celts. This westward and northward retreat continued until finally the original inhabitants were pressed back into the highland areas where, reinforced by natural forces, they were at last able to beat back the enemy and to establish new homes in security. Thus the mountains began to play their part as the preserver of those weaker races which had once occupied the more favorable parts of Britain.

The Ivernians, after several centuries of undisputed possession of the mountain fastnesses, were joined by the Celts who, like the Ivernians, were driven from the lowlands by a new race of superior men. Giving way before these people, the Britons, who were in fact but another branch of the Celtic race, the Celts retired into the Welch Highlands and into Ireland. From the latter place some of the Celts recrossed to Britain and settled in the South-western part of the Highlands (proper) of Scotland. The two exiled races thus coming into contact in Wales and a part of Scotland soon became friends through their mutual adversity and, uniting by intermarriage, became in time one people.

The role of the mountains as havens of refuge for a defeated and retreating race was not, however, complete after the invasion of the Britons, for once again an invasion took place which drove the Britons in their turn into the highland fastnesses. In their retreat before the Roman forces most of the Britons who did not stay to be the slaves of Roman power withdrew into the Welch Highlands. Few if any joined the Ivernians and Celts in the North. Thus there were three successive races of people, driven from the homes which they had erected on the lowland plains, finding refuge in the great highland regions of the West and North. In their new-found homes they were able for centuries successfully to defend themselves against all attempts to dislodge them.

The force of this fact leads one to inquire, What is the nature of these highland areas which rendered them such safe asylums of refuge for a defeated and inferior people? The answer is alone found in a knowledge of the geography of these districts. Both the Welch and Scottish Highlands are the results of a deeply incised systems of valleys impressed upon ancient plateaus. Both face toward the plains of Britain, presenting steep fronts which are scarred with a few deep valleys. In ancient and medieval times these slopes and valleys were covered with dense forests which added to the natural defence of the regions lying beyond the crests of the hills. In these interior regions a net-work of ridges and valleys ran in a bewildering mass, with here and there lakes and bogs which added further difficulties to travel through the mountain districts. The Scottish Highlands north of the Midland Plain, being more extensive in area than the Welch Highlands, are naturally the most intricate and therefore the most isolated of all of the mountain regions of Britain. Filled as it is with crooks and crannies where a native people can easily evade an enemy, it is not to be wondered at that parts of Scotland were never conquered. It was this isolation, secured through the presence of nearly impassable barriers bordering on the lowland plains of eastern and south-eastern Britain and through the intricately dissected nature of the topography of the highlands themselves, which caused the Welch and Scottish Highlands to become the homes of the remnants of defeated peoples. In addition to preserving the people themselves from being

stamped out or assimilated by their conquerors, the mountains also preserved the racial customs and institutions of the folk which they harbored.

The islolation of these mountain districts had a marked effect upon the people whom they protected. In addition to defending the highlanders it wrought a change in their lives and characters. It developed in them the qualities of courage, thrift, and a suspicion of strangers. The government of the people became largely a clan government and this in itself bespeaks the fervent love of liberty which arose in the Highlander's breast. But isolation was not the only force working a change in the temperment of the mountaineers. The climate and the soil of these highland areas were also instrumental in evolving the new-charactered people who, by the time of the Roman conquest, had become a positive force in shaping much of the recorded history of Great Britain. The thin, infertile soil, rendered less productive by being drenched by the heavy rains resulting from the sudden cooling of the moist winds from off the ocean, the lowered temperature, resulting from the constant evaporation of surface water and the elevation, the short seasons, and the rough surface of the land, caused the highlands to be regions especially unfavorable to agriculture. As a result stock raising became a common industry. But more important than this from the historic viewpoint, was the result upon the character of the people themselves. The difficulties in the way of making an easy living from the soil soon developed in the Highlanders the habit of preying upon their more fortunate neighbors of the lowlands. Raids of this character became frequent at an early time and the highland raiders found nearly as much satisfaction in the revenge which they were taking upon the conquerors of their race as they did in the booty which they carried away to their mountain homes.

The historical importance of these raids can hardly be overestimated. From the beginning of recorded history, i. e., from the time of the Roman Conquest, down to the final union of all parts of the island of Britain under a common government, the raids of the highlanders were numerous and were a thorn in the side of the more powerful and industrious people of the lowlands. These piratical expeditions doubtless began during the supremacy of the Britons, for when the Romans appeared, the onslaughts of the Picts and the Scots* upon the frontier settlements were regular and troublesome. The best indication of the seriousness of these attacks is the fact that the Roman forces found it necessary to erect strong ramparts along their frontier in the Midland Plain and to add the double security of a long wall, now known as Hadrian's Wall, which stretched across the entire width of the island between the Firth of Solway and the mouth of the River Tay. Thus defended,

***Picts and Scots were the names given by the Romans to the people in the highlands of Scotland. The Picts were the Ivernians, and the Scots were the Celts. It is interesting to note in this connection that the name Scotland originated from this Roman name for the people who entered the Scottish Highlands from Ireland.**

the Roman arms successfully held in check the barbarians from the mountains. When, however, in 410 A. D., the Roman legions were recalled to the imperial city and the now weak-spirited Britons were left without the defence of the wll-trained soldiers, the raids of the Picts and Scots became more destructive and threatening than ever and, for a time, it appeared as though the lowlands of Britain were to be reconquered by the descendants of its former possessors. The Britons, however, seeing the ever increasing storm brewing in the mountains and fully conscious of their own inability to check its advance, called for help from across the Channel.

The Teutonic Invasion

In answer to this summons came bands of Teutonic people, the Jutes, Angles and Saxons. These sturdy people stemmed the tide of invasion which had begun to flow out of the Welch and Scottish Highlands; but instead of stopping when this task was done they turned about upon their hosts, the Britons, and subdued them. The Anglo-Saxon occupation of the British lowlands followed, only to be disturbed in the 9th century by the invading Norsemen. Throughout the supremacy of the former and the joint occupation of England by both peoples, the mountaineers continued their attacks upon the frontier settlers. Aside from occasional counter attacks by the people of the plain, no effort to eradicate the source of the raids was made. A change, however, was about to revolutionize England.

The Norman Conquest

In 1066 England was again conquered by a foreign invader; this time by the Normans under their king William. The advent of this highly civilized and virile people was followed by a centralization of power and authority which made possible the execution of vigorous attacks upon the wild clansmen of the highlands. William the Conqueror succeeded in invading both Wales and Scotland and even forced the Scottish king to swear allegiance; but permanent or lasting success was impossible when dealing with a people whose policy was to strike sudden blows and then to beat a hasty retreat into the impregnable fastnesses of their mountain havens. The problem which these mountain raiders presented affected materially the reorganization of England which William effected. In transplanting the feudal system into England, William had hoped so to carve and allot the several fiefs as to remove forever the dangers to the Crown which came from a union of strong barons. This ideal of William's worked very well until he came to the territories bordering upon Wales and Scotland. Here he saw that it would be necessary to place what were practically sovereign powers in the hands of several great barons in order that they might act as buffers between the highland districts and the lowland plains of England. These barons became known as the Lords Marchers and they were permitted to maintain

strong standing armies and to govern large counties on the frontier. On the Welch frontier were established the marches of Cheshire, Shropshire, and Herfordshire. On the Scottish border similar great earldoms, like Northumberland, were created. The Lords Marchers were instructed to be prepared to meet and repulse all raids of the highlanders and to return their attacks in an effort to finally subjugate them and to add their territories to the possessions of the English Crown. The presence of these powerful barons did much to lessen the evils of border raids, but the very danger which William foresaw and feared when he created these strong guardians of the peace soon threatened the Crown of England. The Barons upon several occasions rose in revolt and in their attacks upon the Crown they were strongly supplemented by the very people whom they were to subdue. Chief among these uprisings was that in 1399, when Owen Glendower, a Welchman attempting to reestablish the independence of Wales, joined with the earls of Northumberland, Worcester and Douglas in their revolt against the authority of the English Crown. This rebellion was finally put down but raids and conspiracies continued along the borders, especially the Scottish border, until the final union of the crowns and the parliaments of Scotland and England in 1707. *Thus, for over seventeen hundred years did the raiding expeditions of the highlanders play an important part in the making of the history of Great Britain.*

As one might easily imagine, the effect of these raids was not solely to put the natives of the lowlands on the defensive. Offensive expeditions were often sent out to pursue the impudent highlanders and to effect, if possible, the conquest of their mountain fastnesses. The dispatching of such expeditions with their results logically brings us to the last great geographic factor influencing the history of Great Britain; that of the strategic position of the avenues of approach into the highland regions.

The English Conquest of Wales

Of the two highland regions, Wales was the more accessible due to its smaller area and to the greater number of passes into it. Its central highlands are tapped by a number of valleys which, cut out by the head-waters of the Severn River, slope to the eastward. To the south of the mountains runs a fairly wide coastal plain along which access to the western coast is relatively easy. To the north runs another coastal plain, narrower than that to the south. The connection of this plain with the west is, however, cut off by the Snowdon Mountains in northwestern Wales. These mountains also extend westward nearly to the coast. Hence, guarded from approach by either the northern or the western coastal plains, the region to the north-west of the Snowdons is an extremely isolated part of Wales, in fact, the most isolated of any of its parts. This district, known in ancient times as Gwyneth, was the last of the Welch strongholds to fall before the Norman kings.

In the invasion of Wales, little was accomplished prior to the Norman Conquest. After William's subjugation of England he directed a blow at Wales but without any marked effect. In the next century Henry II flung armies into Wales upon three occasions but all these attempts were failures. The pioneer work of conquering the Welch mountaineers was not to be done by the Crown, but was accomplished by the Lords Marchers located on the Welch border. These individuals, in their counter attacks upon the highland raiders worked up the valleys of the Severn tributaries and along the southern and northern coasts until by Edward I's reign they had subdued all of Wales except the province of Gwyneth. In this well protected corner of the Welch Highlands the last of the independent Welch evaded the enemy successfully by retreating up the Snowdons when attacked. All attempts to starve them out were fruitless, for but a short distance off shore to their rear lay the island of Anglesey from which provisions could be secured in abundance. With the accession of Edward I to the throne of England came, however, the death-knell of this last stronghold of a brave and independent people. Edward determined to accomplish the downfall of this last source of disturbance in Wales. Leading an army by the northern coastal plain and sending his navy to occupy the strait separating Anglesey Isle from the mainland, Edward succeeded in besetting the Welch from front and rear. Thus surrounded, the fate of the brave defenders in the Snowdons was sealed. Surrender and British rule was all that remained for them. In this manner was stamped out the last trace of Welch independence which the highlands had fostered and maintained for centuries. Wales was conquered because of the natural weaknesses in its strategic position resulting from the presence of a number of fairly easy avenues of approach into its highland areas. Scotland, however, was not to be thus betrayed by Nature.

The Natural Strength of Scotland

In the consideration of the strategic position of the avenues of approach into the Scottish Highlands, the passes of the Southern Highlands will not be considered, for, although they were the sites of several notable battles and figured to some extent in the affairs of Britain, they never were a decisive force in influencing the history of the island. Lying between two great lowland areas and cut by several convenient passes, they never became a serious hindrance to the advance of the power of the nation inhabiting the lowlands of England.

The approach to the highlands north of the Midland Plain was, however, from the beginning of recorded history in Britain down to 1707 a constant challenge to invading forces and the strength of Highland Scotland's secure and impregnable position. But one practical route was available for movement into the Highlands north of the Midland Plain. A succession of low hills, the Campsie, the Ochils and the Sidlaws, extending from east to

west across the northern part of the Midland Plain or Great Rift Valley, is the first barrier to be encountered in an advance toward the Highland area. Through these hills there is but one convenient pass, namely, that made by the River Forth between the Ochils and the Campsies. This pass being at the head of the only route to the Scottish Highlands early became an avenue of great strategic value. On its site the Scots erected a strong castle, Sterling Castle, and for the possession of this important fortification, several memorable battles were fought including that of Bannockburn. North of this important pass the pathway into Scotland led along the eastern coastal plain to the eastern end of Glenmore. Along this highway an invading army, which had succeeded in passing the first barrier at Sterling, was further liable to obstruction on a march to Glenmore by narrow places in the plain where the Scots upon the higher ground could offer a stubborn resistance. Chief among these points of strategic advantage was the region about Dunbar. Here the Highland forces met Cromwell while he was on his expedition to effect the subjugation of Scotland. With more valor than generalship the Scottish army gave up the vantage point which they held and descended to the plain where they met defeat at the hands of Cromwell's well trained army. As to the strategic value of Glenmore little can be said, for no army of invasion ever attempted to use it as a means of entering the highlands. The union of Scotland and England came before any English army reached either of its termini with a force strong enough to attempt the expedition. After the union it did become important as a means of crushing insurrections and eventually in breaking up the clan system in the remote highland areas. Three forts were erected along this great valley in order to preserve the peace. There is no doubt but what Glenmore was to the Scotch what Menai Strait was to the Welch only it was much stronger in being impossible of investment from the sea. The Scotch Highlands also had the advantage over the Welch Highlands in that the central part of its highlands are, with but one exception, free from the easy valley routes which tap the Welch mountains, and further, approach along a coastal plain is limited to but one route in Scotland whereas Wales is nearly circumscribed by such lowlands. These facts easily explain why Wales fell before the power of England while Scotland was long able to remain unconquered.

Thus, from almost the beginning of human life in the highlands of Great Britain down to the present time, the isolation of the highlands, their climate and soil, and the strategic position of the avenues leading into them have all, either singly or collectively, been an important factor in shaping the history of Great Britain.

INFLUENCE OF THE PHYSICAL FEATURES OF SCOTLAND UPON THE PEOPLE

(*From Geikie's "The Scenery of Scotland.*)

"THE connection between the physical features of a country and the history and temperament of its people has hardly received, from either historians or geologists, the attention which it deserves. Though not obtrusive, it is real and close, and amid other and more potent influences has never ceased to play its part in the moulding of national character and progress. It may be seen (1) in the distribution and migration of races; (2) in the historical development of a people; (3) in industrial and commercial progress; and (4) in national temperament and literature. I propose briefly to refer to the illustrations which these questions receive in Scotland.

(1) "The fundamental distinction between highlands and lowlands has had a powerful effect on the wanderings and ultimate grouping of the different races of mankind. Nowhere can the influence of this topographical contrast be better observed than in Scotland. The Scottish Highlands, sharply defined against the Lowland plains, and washed around their other sides by the stormy Atlantic Ocean, offered in rude times a wild and almost inaccessible asylum against invasion. There the original Gaelic population has been able to maintain itself, while wave after wave of hostile immigrants has broken against the bases of the hills. The Cymri, who came after the Gaels, possessed themselves of the southern part of the country; but they do not seem ever to have advanced beyond the limits of their Strathclyde territories. The Romans carried their conquests up to the borders of the Highlands, but there was nothing among those dark mountains to invite them farther. They marched into the northern wilds, indeed, but it was rather for vainglory and to punish their savage assailants than with the view of permanent occupation. And so tracing their wall and planting their forts across the narrowest part of the island, they were content to let the Highlanders keep their fastnesses.

"When the next wave of conquest brought successive hordes of Norsemen and Danes from beyond the sea to our shore, the same physical features, which had guided and limited the march of the southern invaders, once more set bounds to the progress of the Vikings from the north.

"The lowlands of the northern counties and of the Midland Valley lay open to the war-boats of the pirates, and there, driving out or absorbing the Celtic population, the Teutons firmly planted themselves. But they never pushed their way far into the mountains. Down to this day, in spite of the slow but unceasing diffusion and amalgamation of the races, the geological boundary between the rough ground of the crystalline schists on the one hand, and the drift-covered plains of the Moray Firth on the other, is still in great measure the boundary of the Gaelic-speaking and English-speaking popula-

tions. On these fertile lowlands, we hear only English spoken, often with a northern accent, or with some northern words that seem to remind us of the Norse blood which flows in the veins of the hardy fisherfolk and farmers. We there come upon groups of villages and towns. The houses, though often poor and dirty, are for the most part solidly built of hewn stone and mortar, with well-made roofs of thatch, tile, slate, or flagstone. The fuel in ordinary use is coal, brought by sea from the south.

"But no sooner do we advance within the Highland districts of the crystalline schists than all the human associations of the ground, as well as its physical aspect, appear changed. Gaelic, though slowly dying out, is still over wide regions the vernacular tongue. There are few or no villages. The houses, built of boulders gathered from the soil, and held together with mere clay or earth, are covered with frail roofs of ferns, straw, or heather, kept down by stone-weighted ropes of the same materials. Fireplaces and chimneys are luxuries not yet universally adopted, and the pungent blue smoke from fires of peat or turf finds its way out by door and window, or beneath the begrimed rafters. The contrast of geological structure and scenery which allowed the Teutonic invaders to drive the older Celtic people from the coast-line, but prevented them from advancing inland, has sufficed during all the subsequent centuries to keep the two races apart."

Speaking of the influence of environment upon national temperament, Geikie says, regarding the differences manifest in the Irish Celts and the Highland Celts of Scotland, "I am disposed to regard this difference in temperament as traceable in great measure to the peculiar condition of the Highlander's environment. Placed in a glen, often narrow and rocky, and separated from his neighbors in the next glens by high ranges of rugged hills, he has had to contend with a scant and stony soil, and a wet, cold, and uncertain climate. He has to wage with the elements a never-ending battle, wherein he is often the loser. The dark mountains, that frown above him, gather around their summits the cloudy screen which keeps the sun from ripening his miserable patch of corn, or rots it with perpetual rains as it lies week after week on the sodden field. He stands among the mountains face to face with nature in her wilder moods. Storm and tempest, mist-wreath and whirl-wind, the roar of waterfalls, the rush of swollen streams, the crash of loosened landslips, which he may seem hardly to notice, do not pass without bringing, unconsciously perhaps, to his imagination their ministry of terror. Hence the playful mirthfulness and light-heartedness of the Celtic temperament have, in his case, been curdled into a stubbornness which may be stolid obstinacy or undaunted perseverance, according to the circumstances which develop it. Like his own granitic hills, he has grown hard and enduring, not without a tinge of melancholy, suggestive of the sadness that lingers among his wind-swept glens, and that hangs about the birken slopes around his lonely lakes."

THE MINIMUM REQUIREMENT

By Robert M. Brown

Rhode Island Normal School, Providence

THE discussions over the minimum requirement in geography have brought to light two classes of advocates: those who believe that all the geography work of the grades can be included in a list of places and conditions and those who believe that such a list represents merely the basis for the work in geography. There is a tendency among certain groups of school managers to emphasize the necessity of a minimum requirement, and inasmuch as the signs indicate in some cases an advocacy of a printed list of facts with little or no attention to the educational advantages of correlating the items or drawing deductions therefrom, it seems wise to continue a line of thought which this Journal has presented at various times during the last few years.

Notwithstanding all that has been written and spoken, there is a large group of teachers who agree passively to the newer methods of presenting geography yet who nevertheless have not been able to make it a part of their practice, but on the contrary, mostly because of lack of light, are actively engaged in the teaching of the subject on the memoriter plan. To such a group, a list representing the minimum requirement would act as a deterrent to progress and inevitably the teacher would become the slave of the printed course. It is not going beyond the pale of truth to assert that in many instances directors of educational thought are responsible for this either unintentionally because they have not realized the existence of the evil or intentionally by open advocacy of the memoriter plan of teaching geography.

The stimulus to this paper is a letter from a school superintendent, in Massachusetts. In the letter it was stated that a minimum requirement list for teachers would be issued during the next school year and contributions of lists or of information were solicited. Furthermore, the inference was made that the whole course was to be assigned so that the teachers would know exactly what facts should be taught in their grades. Apparently there was no room for any other phase of the teacher's art save drill. Geographers will not deny that drill is necessary although in reality it represents but a small share of the teacher's work in the subject. It is the beginning, the basis of geography teaching; it is an essential for true geography work. The number of facts which ought to form the foundation of this drill must be sufficient to yield a skeleton or framework. Such a list Professor Ridgley publishes in the June, 1914, issue of the Journal of Geography. It is not at this stage a wise plan to bicker over items of the list; it is better to welcome it as suggestive of the trend of the times, and, in lieu of no other, it can be adopted with safety. But, to repeat one of Professor Ridgley's sentences, "place geography is only a phase of the larger field of geography, and must not be set up as an end in itself."

Another Massachusetts Superintendent of Schools has issued minimum essentials in geography. The sheets on South America, two in number, contain a map of the continent with letters at the locations of the large cities and numbers at other points. The first paper is a study and drill paper and contains about 130 statements with blanks to fill in, thus:

"The great grazing and agricultural country at 8 is....."

"The largest country of S. A., large as U. S., is....., at....."

The second paper is for a written test and follows the same plan:

"The ocean west of South America is the....."

"The river flowing into..... at 5 is the....."

Here the emphasis is laid on drill in order to gain, apparently, a knowledge of a number of facts. Any further plan of the author is not revealed and the sheets give every evidence of emphasizing as the end of geography a knowledge of unrelated items. If geography can be compassed by a minimum requirement alone, 371 place names for instance, then efficiency experts will say that five or four years of geography is a great waste of time. But geography has a larger and more important mission. It is necessary to know places; no one has denied it, although many people have misinterpreted the geographers stand in the matter. It is very likely true also that the geographer possessed with the belief that relationships and responses were after all the essentials has neglected to state his position concerning place geography. Certain it is that the old geography placed the wrong emphasis on locations. The plan of very many places carelessly taught did show the futility of the cramming process and now a better knowledge of the scope and goal of the subject reveals the way out.

The minimum requirement list is the static phase of geography. The larger and much more important part is the dynamic phase and it is this latter side which cannot be assigned in any very definite way as yet. The usual examination in geography is a test of place, or static, geography and rarely does a question in dynamic geography creep in. All the work in any minimum requirement list yet published can be done in one-fourth of the time assigned to geography and unless the teacher spends the remaining three-fourths on teaching the value and use of the facts presented she wastes time or is guilty of the offences of the older geography-teaching.

That work in dynamic geography presents difficulties cannot be denied; it does not lend itself easily to the present plan of testing; it demands more initiative on the part of the teachers and, although it has been the subject of repeated discussions, there are comparatively few places convenient to the mass of teachers where it is actually in practice. But its advantages far outweigh the disadvantages and no true teacher, after she has struggled through and mastered the science of dynamic geography, will ever be content again to teach place geography alone. The easiest approach to this is by problems which make use of the items of the minimum requirement list. For example, the

common practice of teaching the rainfall of each continent as a fact subject adds a great array of confusing data to the stock in hand. On the other hand if the various reasons for rainfall are considered, such as windward and leeward sides of mountains, wind belts, their migrations and the like, then when the facts of location are known, the distribution of precipitation becomes an example to be solved. This process has a double value; first, if problems are presented which can be solved only by knowing the facts about a country an incentive is offered for learning the facts carefully and, second, it teaches the children how to make use of their knowledge and this, after all, is the main reason for keeping school.

While it is possible to indicate the general line of procedure in dynamic geography the actual desiderata can not be so definitely listed as can the facts of place geography and moreover it is not altogether desirable to do so, for the teacher must in the long run be more than a task master. Type presentations in regional geography have illustrated for the teacher a pathway but as yet regional geography in its fuller aspect, finds little place in the grade schools. The allied branch of economic geography also offers a large field for the teacher who understands the principles of the subject. In either sub-division an inventive teacher may find innumerable problems which will give the breath of life to the geography lesson.

Therefore the publishers of minimum requirement lists in geography ought to state definitely their point of view. If they believe that a list of place names only should form the geographic equipment of their charges, one of two things is necessary, either to make the list very long in order to cover the time allotted to geography in the grades and thereby revert to the errors of earlier teaching or, if the list is a reasonable one, to cut down the time requirement. Then let them turn to some of our recent books on education and see how insufficiently the task which has been set meets the requirements of the ends of education. If, on the other hand, the list of place names is supposed to be the basis merely of dynamic geography the teacher must be made to understand that while perfection in the items is required, time must not be wasted in the achievements of memory alone. Then, directors can concentrate their attention on the formulation of courses of study which will suggest the true nature and scope of geography. With so little attention paid to the dynamic side and therefore so little general experience it is unwise to attempt, even if it could be done, any limits comparable to the minimum requirements of static geography. As time goes on however not only will there be a chance for choice but definite ways of testing the capacity of the pupils and the efficiency of the teaching will be revealed. At all events those who have liked the sound of the minimum requirement suggestion or have been infatuated by the efficiency doctrines should understand the full meaning of the movement in any particular branch before attempting reforms, lest disaster overtake them.

SOME GEOGRAPHICAL ASPECTS OF THE PRESENT EUROPEAN WAR

EUROPE has been in a state of unstable equilibrium for centuries. Many boundary lines between European nations are purely arbitrary; they were fixed as the result of wars in which the loser was forced to accept such terms as the victor would grant; but such boundaries are seldom regarded as final by the losing nation, nor are they likely to prove permanent, since they are determined by no natural cause.

As long as English kings attempted to hold territory in France, there was constant trouble, centuries of warfare. When the United Kingdom came to be limited by the natural boundaries which now define it, France and Britain were in position to become friendly. Old animosities were not immediately forgotten but since the chief cause of their existence, unsatisfactory boundary adjustments, had largely disappeared, it was only a matter of time when the two old enemies might become friendly. In the Crimean War they fought on the same side, and Great Britain entered the present war largely to aid her ally, France, once her hated enemy. The state of tension which has existed between Germany and France since the Franco-Prussian War was the result of the taking of Alsace-Lorraine, and thereby the establishment of a boundary line unsatisfactory to one power. If a range of mountains such as the Pyrenees or a body of water such as the English Channel had been available as a boundary between France and Germany, it would, by force of its appropriateness, have been accepted, in course of time, by both nations.

The present war began in the Balkans. For a generation or two, it has been evident that the Balkans are a Prince Rupert's Drop, a region in a state of tension because every boundary line in the peninsula was drawn more or less arbitrarily, and was forced upon the several countries by outside powers; since few of the boundaries have any natural cause, few of them have been accepted as final by the nations concerned. Moreover, the mountainous character of the peninsula and its geographical position in the southeast of Europe have made it a refuge for a variety of races, none too friendly under any conditions, but kept from an easy and friendly intermingling through the difficulties presented by the physical features of the peninsula. Had the Balkan peninsula been part of the Russian plain, it is quite likely that the various races would have mingled and to a degree, amalgamated and that they would have been absorbed into the Russian Empire just as other parts of the plain were. Much of the tension which has long existed in Europe has arisen from the determination of certain European powers to force upon other countries unnatural and unacceptable boundaries. If the Ottoman Empire has any appropriate boundary, it is not the absurd one arbitrarily determined by the Powers at the close of the late Balkan War, but it is that boundary which has long been accepted as the separating line between Europe and Asia. No

more can there be peace in the Balkan Peninsula so long as the Turk rules any part of it than there could be in Spain while the Moors ruled a part of it. When the Moors were driven back into Africa, and even so narrow a water boundary as the Strait of Gibraltar separated them from Europe, things assumed a more settled condition. There is no escape from the logic of a nature-fixed boundary line. Nations will often accept such, when they will not permanently accept any other.

Everyone recognizes that Russia will never rest until her unnatural and unbearable condition with reference to open ports is relieved. Either Russia must be allowed an outlet or she must be reduced to impotency. It will not be surprising if, in the adjustments following the present war, Russia insists upon concessions of this nature which, heretofore, the powers have denied her; this assumes that Russia is on the winning side. If she should be on the losing side, her situation will be made still more unbearable and the tension will continue.

Both Belgium and Holland are maintained as independent nations in defiance of their geography. How little the neutrality of Belgium was respected when the violation of that neutrality became advantageous to Germany, is seen in the action of Germany on the very first day after hostilities began. Holland's neutrality will not be respected if any of the great powers in the present conflict find it to their advantage to violate it. Yet, there is much less danger to Switzerland, and the difference lies in the geography of the respective countries.

The present struggle is a sad commentary on our civilization, on our boasted, advanced civilization. But evidently the struggle had to come. Evidently force, not reason, still rules or intends to rule. Perhaps Europe can learn in no other way. Perhaps the hollow and specious motto of the war party in every country—"The way to preserve peace is always to be prepared for war"—will now be shown in its true light. It is not necessarily true that there can be no permanent peace among nations so long as their boundaries are fixed by force or politics instead of by nature, but it is true that men and peoples are more willing to accept boundaries which have their logic in natural or geographical conditions than they are to accept boundaries which are purely arbitrary.

Many factors of many kinds are involved in this great European struggle; some of these are purely political, some are psychological, but the underlying ones are essentially geographical. R. H. W.

The Geographical Society of Chicago is performing valuable service in its publications, the last of which is "The Weather and Climate of Chicago," by Henry J. Cox and John H. Armington. This is the fourth volume issued under the auspices of the Chicago society.

SUGGESTED MEANS OF MEASURING EFFICIENCY IN THE TEACHING OF GEOGRAPHY

By R. H. Whitbeck, University of Wisconsin

EFFICIENCY in the teaching of geography, like that in the teaching of other studies, may be measured by three tests:

(1) INTEREST,—

the degree of interest in the subject which is developed in the pupils and which manifests itself both in their attitude in the class and in their desire to read and to see more of the real things with which the study deals.

I have seen this test applied successfully in the following way: The teacher placed on her desk a number of geographical readers, books of travel, and geographical magazines, from which she had made a list of articles or chapters which furnshed interesting supplementary matter along the line of the study which the class was then pursuing. The teacher simply said to the pupils, "I have posted here a list of interesting readings, and I have the books from which these readings are selected, on my table. If any of you desire to take a book home for a day or two, you may do so by applying to me at the close of school." Nothing more was said. The number of pupils who applied for books, and the evidence that they read these, was taken as an index of the amount of interest which pupils had developed or were developing in the subject. I noted that there was an intimate connection between the efficiency of the teacher's work and the number of pupils who asked for these books and magazines, as naturally would be the case.

(2) KNOWLEDGE

This is of two kinds:—

(a) Specific and accurate knowledge,

(b) General knowledge.

The field of geography is very broad and there is constant need of differentiating between that relatively small body of fundamental knowledge which ought to be known accurately, and on the other hand, that larger body of useful geographical knowledge which is valuable, though not strictly fundamental or essential. The teacher needs help (through a syllabus) in determining what facts shall be emphasized, drilled, and reviewed, and what ones may be discussed more or less informally in the class but not drilled or reviewed, at least to any considerable extent.

Efficiency in teaching geography will result in a very large proportion of pupils knowing thoroughly and surely this smaller body of essential knowledge.

(3) POWER

Measured by the pupil's ability relative to his age:

(a) to use his geographical knowledge in judging and reasoning along geographical lines;

(b) to visualize maps,—that is, to call up mental map-pictures and to see parts of the world in their correct place relations. The only way in

which we can visualize large regions of the world is through these mental map-pictures, hence the importance of thorough map-studies;

(c) to use common reference books such as the atlas, gazetteer, encyclopedia and possibly a few others.

The following suggestive questions or exercises are given as illustrations of a method of applying the tests referred to above. The power to use geographical knowledge in forming judgments and in reasoning may be tested by such questions as the following:

(a) Suggest explanations for as many of the following facts as you can:

(1) There are places in the torrid zone where even in summer it is as cold as in Labrador.

(2) Hammerfest, Norway, is in the frigid zone, yet its harbor is never frozen over while the St. Lawrence River is closed by ice for several months each winter.

(3) We have our winter when the earth is nearest the sun.

(4) The little country of Holland has a larger foreign trade than the great country of Russia.

(5) In Nome, Alaska, there is light enough in summer to permit the reading of a newspaper at 10 P. M.

(b) Another type of questions may be illustrated by the following:

(1) What three or four countries of Europe would suffer most if all trade with foreign lands were cut off? Give reasons for your answer.

(2) Germany maintains a great army and Great Britain a large navy. Account for this difference.

(3) In general, the average production of wheat per acre diminishes as you go from central Russia towards the east. Give several reasons which might explain this. Which do you consider the main one?

(c) Power to call up mental map-pictures may be tested by such questions as the following:

(1) Sketch a map of South America and place upon it in their proper positions,

a—the equator
b—the Amazon River
c—the Orinoco River
d—the northern boundary of Chili
e—Buenos Aires, Rio Janeiro, the coffee district of Brazil.

(2) Tell as accurately as possible in what direction

a—Berlin is from London
b—Panama is from Florida
c—Nova Scotia is from England
d—Cuba is from New York
e—France is from Philadelphia.

(d) Ability to use books of reference may be tested by such questions as the following: If you wish to find quickly the following information, tell in each case what you would do or where you would look for it:

(1) the pronunciation of *Rio Janeiro*
(2) The population of London
(3) How coffee is cured for market
(4) The approximate distance from New York to Panama
(5) What and where is Chad?
(6) How to go by rail from Chicago to New Orleans
(7) Name of the present king of England
(8) The area of Switzerland.

In my judgment an examination which reveals efficiency in teaching will involve questions of each of the above types. Tests to show the efficiency of teaching will, of course, vary with the maturity of the pupils. In the grades below, say, the 7th, the pupils' interest and knowledge are more legitimate measures of efficiency than is their power. In grades 7 and above, power to think and reason and ability to sketch memory maps or fill in outline maps and to use reference materials, is of increasing importance.

A COMMUNICATION

Editor of The Journal of Geography—

At the St. Paul meeting of the National Education Association the need of a national organization of Geography teachers became apparent and the organization of such an association was suggested. We have no association devoted to the educational phase of our science, and at most educational meetings, Geography discussions are therefore little more than side issues. Is there not need of a National Association of Geography Teachers to encourage the expansion of the science in our schools, to better what is now taught, and to unify ideals among teachers? Such an organization should be affiliated with some other existing body of teachers, such as the N. E. A. or the Association of American Geographers.

It seems highly desirable to follow up the idea expressed at the St. Paul meeting. Therefore, I beg to suggest that you ask for an expression of opinion, through the Journal of Geography, requesting that all teachers of Geography who favor such an organization communicate either with the Journal or the undersigned. Why would it not be a good time to effect a temporary organization at the Chicago meeting of the Association of American Geographers next December?

Very truly yours,

George J. Miller,
State Normal School, Mankato, Minn.

Editor's Note.—We believe the above suggestion is worthy of careful consideration and we hope that many teachers will respond.

NEWS NOTES

Prof. Amos Farnham, for many years teacher of Geography in the Oswego, N. Y., Normal School, has an article on "The Land of Bohemia" in the June number of *The Vocationist*. Regarding the word Bohemia, Prof. Farnham says: "The term Bohemia has an unfortunate use, which use is the only one understood by many intelligent people. Long ago a vagabond race came from India and scattered over Europe, hence over Bohemia. Later the descendants of this race came to America from different European countries including Bohemia. They were called Bohemians. They lived by theft, fortune-telling, tinkering, and trading horses. These vagabonds are still in our midst and are called Bohemians, when they are not called gypsies. They might with the same propriety be called Bavarians, Hungarians, or after any other country which they had infested, and from which they had emigrated to our shores."

Prof. R. DeC. Ward, of Harvard, published in the January, 1914, *Monthly Weather Review* a highly interesting Appreciation of Lorin Blodget's "Climatology of the United States." Prof. Ward's article includes many excerpts from the book. Of this volume he says: "More than ever before, I am impressed by the labor involved in the preparation of this book; by the author's broad and clear view of his subject; and by the practical application of the facts. My rereading of this book has given me new light on my path as a teacher. And I hope that this notice may turn attention once more to the importance of Blodget's work for American climatology, and may help to preserve for this almost forgotton author of 50 years ago the place to which he is entitled among American meteorologists."

Reports from the summer schools indicate a widespread growth of interest in the Geography courses. The Cornell enrollment was one-third larger than last year. W. M. Gregory reports over 100 teachers in his geography classes at the Peabody College for Teachers in Nashville. The registration in geography classes at the University of Wisconsin was more than double that of any previous year, and Chicago's enrollment increased nearly fifty per cent over 1913.

President Gould and Secretary Lange of the Geographical Society of Wisconsin, have arranged the program for the annual meeting of the Society at Milwaukee next month. Among the speakers announced are Professors Goode, of the University of Chicago, and Martin of the University of Wisconsin. Professor Goode will also deliver an address on Geography at one of the big general sessions of the Wisconsin Teachers' Association.

Gannett, Garrison and Houston's *Commercial Geography*, originally issued in 1905 (American Book Co.), has been revised and the statistical matter brought down to 1910 or later.

Two papers on the subject of Geography-teaching were presented before the Science Section of the National Education Association of Saint Paul; one by R. H. Whitbeck on "Geography Teaching in City High Schools," and one by W. J. Sutherland on "Geography Teaching in the Smaller High Schools."

NEW YORK STATE (REGENT'S) EXAMINATION IN GEOGRAPHY

New York has uniform examinations throughout all of the schools of the state, held on the same day and hour in every school. The following examination is the final test for "passing" pupils out of grade school geography; 75 is the passing grade. Ten questions must be answered.

1. In what continent is *each* of the following mountains: Andes, Rocky, Alps, Himalaya, Appalachian? Tell in what general direction each extends.

2. Tell what *each* of the following is and give its location: New Zealand, Caribbean, Victoria Nyanza, Steppes, White House.

3. Give the general direction of *each* of the following rivers and name the body of water into which each flows: Connecticut, Amazon, Thames, Ganges, Nile.

4. Locate by states the following cities: Boston, Chicago, Philadelphia, New Orleans, Detroit, Pittsburg, Cincinnati, Atlanta, Lincoln, Seattle.

5. Compare the climate of the northwestern coast of the United States with that of the northeastern coast in the same latitude. Give reasons for the difference.

6. Name *three* kinds of soil. Tell *two* ways in which nature transports soil.

7. Mention *four* conditions that modify the climate of a place.

8. Write at least 75 words on *Dairy Farming,* describing it briefly, giving the conditions that make it profitable and naming the products.

9. Name the five races of men. Describe *one* of these races.

10. Give *one* important fact about *each* of the following: (*a*) Waterloo, Belgium, (*b*) St. Helena, (*c*) Saratoga, (*d*) Genoa, (*e*) Rome, Italy.

11. What is meant by water storage? What benefits will come to the industries of this state through water storage?

12. Give *one* important reason for the growth of each of *three* of the following: (*a*) Schenectady, (*b*) Niagara Falls, (*c*) Montgomery, Ala. (*d*) Nome, (*e*) Duluth, (*f*) Seattle.

13. Draw an outline map of New York State. On this map indicate, with names, *five* water boundaries of this state.

14. Name and locate the following in New York State: (*a*) *two* rivers that furnish important water power, (*b*) *two* places where important battles have been fought, (*c*) the highest mountain.

15. Name *one* famous business street, *one* famous residence street, the *two* largest parks and *two* means of rapid transit in New York city.

Examination Questions for the Intermediate Certificate in South Australia

Geography.

Candidates must attempt only five questions, viz., 1, 2, 3, and any other two.

1. Explain the meaning of the following terms with reference to Australian meteorology. Illustrate your answer by sketches, inserting barometric readings and winds:—Cyclone, monsoon, "V"-shaped depression.

2. State what and where the following are, and give interesting facts about each of them:—The Rand, Birdsville, Alberta, Darjeeling, The Great Karroo, Minneapolis, Perim, La Paz, Buluwayo, Rotorua.

3. Give a general description of the natural resources, exports, and distribution of population of either China or Canada.

4. What effects do you consider the opening of the Panama Canal will have on the trade of the world?

5. State where the following products are chiefly found:—Gold, oil, silver, jute, sulphur, diamonds, tin, quicksilver, platinum.

6. What States are wholly or mainly drained by the Rio de la Plata? Draw a fairly large map showing the principal rivers which unite to form it. Mention the occupations of the inhabitants of the watersheds of these streams.

7. What are the chief volcanic regions of the world? Mention anything of interest you have noticed with regard to the positions of these regions.

8. Name, in order of importance, the chief wheat-growing countries of the world, and state their comparative advantages and disadvantages for the development of that industry.

Commercial Geography.

1. Name the chief producing countries of the following:—Rubber, asphaltum, cinnamon, mahogany, cotton, opium, cinchona, tea.

2. Specify *five* marked illustrations of man's skill in overcoming adverse physiographic conditions for the purpose of promoting material welfare.

3. Name the principal imports into the Commonwealth of Australia from the following countries:—India, Canada, and Java. What commodities are sent to these countries from Australia?

4. Locate the Suez Canal, Kiel Canal, Welland Canal, and state what special advantage to commerce each contributes.

5. Write *full* notes on the situation and commercial importance of *Chicago, Singapore, Genoa.*

A Little Book on Map Projection by Mary Adams was issued during the past summer by George Philip and Son, London. (50 cents). It is intended for use in secondary schools and normal schools.

RECENT PUBLICATIONS

THE TRADE OF THE WORLD. By James Davenport Whelpley. 436 pp. 80 illustrations on plate paper. The Century Co., N. Y., $2.00 net, postage extra. Published October, 1913.

The title does not closely fit the book. The author has traveled widely, has resided in most, if not all, of the countries of which he writes, and is intimately acquainted with his subject. The style is easy, the matter interesting, but by no means confined to matters of trade. The treatment is on a broad economic basis, dealing with resources, transportation, condition of the people, foreign relations, etc. Great Britain, Germany, France, Belgium, Austria-Hungary, Italy, North Africa, Japan, China, Russia, Argentina and the United States are the countries which are considered. One chapter deals with the interesting theme, "If Canada were to Annex the United States." The opening chapter discusses "Trade Strategy; a 34-billion dollar Stake in Commercial Diplomacy," and is an illuminating chapter, particularly valuable for students of Commercial Geography, and candidates for the consular service. Statistics are sparingly introduced. The treatment is analytical and interpretative, and is enriched with a wealth of concrete illustrations drawn from the author's wide experience.

THE CLIMATE AND WEATHER OF CHICAGO. By Henry J. Cox and John H. Armington. The University of Chicago Press. pp. xxv+375. $3.00 net. Transportation extra: weight 3 lbs., 1 oz. (1914).

This is Bulletin No. 4 of the Chicago Geographical Society; a large part of the cost of publication was met by the contributions of generous Chicagoans. The book is divided into eight parts, namely, Temperature, Precipitation, Atmospheric Moisture, Cloudiness and Sunshine, Wind Direction and Velocity, Barometric Pressure and a Conclusion. There are 147 tables, 9 plates and 99 figures.

The volume plainly represents an enormous amount of work, done in a thoroughgoing way. No critical review is here attempted, for such a review should be made only by a specialist in Meteorology. A book of this sort is a distinct credit to the scientific spirit of the writers, who have given so largely of their time, and to the enterprise of the Chicago Geographical Society, which has secured its publication.

How Man Conquered Nature is a recent issue in Macmillan's "Everychild's Series," (40 cents). The author is Minnie J. Reynolds. As a supplementary reader, it forms an introduction to the study of Industries and Industrial Geography. Typical chapters deal with—First Manufactures, How Man got the Food Plants, The Story of Man's Clothes, What the Mineral World Furnishes, The Growth of Civilization through Trade, and Why our Race has Conquered. There are 250 pages and a few illustrations.

THE PHILIPPINE ISLANDS

There are 3141 islands of which 2775 contain less than one square mile.

About 500 miles from the coast of Asia. Entirely within the tropics; total land area is 115,026 square miles, equal to two Wisconsins. Mainly of volcanic origin, and very mountainous. Highest elevation, 8868 feet.

Monsoon climate with six months rainy season beginning in April.

Earthquakes and tropical hurricanes are frequent. Twelve volcanoes have been in eruption in historic times.

Total population, about 8,000,000 of which 7,000,000 are classed as civilized or partly so. The 8 civilized tribes are Roman Catholic, and the 16 smaller wild tribes are either Mohammedans or are in varying stages of barbarism. Half of the people live in Luzon.

Largest export is cocoanut oil; nearly 400,000,000 pounds in 1912.

Have a monopoly of Manila hemp, which grows wild and has never been successfully raised elsewhere.

Sugar is not likely to become a great product on account of lack of capital and efficient labor, and because of a law which prevents the acquisition of large plantations.

The fourth export, in value, is tobacco.

Coffee has ceased to be of importance, due mainly to a disease which attacked it.

Rice, the principal food, is widely grown, but in addition, hundreds of millions of pounds are imported.

Bananas are the commonest and cheapest fruit; more than 50 varieties are produced in the archipelago.

Agriculture, crude and primitive, is the chief occupation, but the farmers are not prosperous. Only one acre in 30 is cultivated.

One-third of the world's supply of copra, the dried meat of the cocoanut, comes from the Philippines.

The public forests cover 40,000,000 acres, two-thirds of the area of the islands. They could yield $30,000,000 a year under scientific management, yet they do not supply the home demand.

Coal of low grade is mined, but the folding and faulting of the strata makes mining difficult.

Corn is brought from Rosario, Argentina, to New York at about the same freight rate as the railroads charge from Buffalo to New York. From September to December, 1913, we imported from a half million to two and one-third million bushels of corn each month from Argentina; and this in spite of the fact that the United States produces two-thirds of the corn grown in the world.

OUR TIMBER SUPPLY

(From U. S. Government Bulletins)

Amount and Ownership

The total amount of standing timber in the United States is close to 2,900 billion board feet.

At least 76 per cent of this, or 2,200 billion feet, is privately owned.

About 21 per cent, or 600 billion feet, is in the National Forests.

About 3 per cent, or 90 billion feet, is in some other form of public ownership—Federal, State, or municipal.

The original stand of timber in the United States has been roughly estimated to have been 5,200 billion feet, covering approximately 800,000,000 acres.

Fire has destroyed at least as much of this as lumbering has utilized.

As much again has been wasted.

Where It Is

Almost five-elevenths of the country's timber is in the Pacific Northwest (Washington, Oregon, Idaho, and northern California), where the chief trees are Douglas fir, western red cedar, western yellow pine, sugar pine, larch, and redwood.

Of the remaining timber, a little more than half, or about one-fourth of the total supply, is in the Southern pine region (Louisiana, Mississippi, Arkansas, Florida, Texas, Alabama, and parts of Georgia, North Carolina, South Carolina, Virginia, and Missouri), where the principal trees are longleaf, shortleaf, and loblolly pine (all marketed under the name of yellow pine), cypress, and gum, oak, and other hardwoods.

The Lake States contain perhaps 100 billion feet of timber, mostly white, jack, and Norway pine, hemlock, balsam, beech, birch, and maple.

The Northeastern States are the chief source of supply for spruce, from which most of our paper pulp is made.

Most of the National Forests are in the mountains of the West, following in general the Rocky Mountains and Pacific coast ranges from Washington, Idaho, and Montana to southern California, Arizona, and New Mexico. A few are in Arkansas, Florida, Nebraska, Michigan, Minnesota, Alaska, and Porto Rico.

States which have set aside forest reserves of their own are California, Connecticut, Indiana, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, South Dakota, Vermont, and Wisconsin.

Annual Cut

The annual cut of sawtimber in the United States is approximately 43 billion feet.

At this rate, if there were no new growth, our present timber supply would last about 65 years.

Though it contains practically half of all the standing timber in the country, the Pacific Northwest at present furnishes only one-sixth of the annual cut.

The southern pine region is the present center of the lumber industry, furnishing about 45 per cent of the annual production.

The Lake States, once the center of lumbering, now supply a relatively small amount of timber as compared with the Southeast, and less than the Pacific States.

In 1912 the chief lumber-producing States, in the order of their importance, were Washington, Louisiana, Mississippi, North Carolina, Oregon, Texas, Arkansas, Virginia, Wisconsin, Michigan, Minnesota, Alabama, West Virginia, California, and Florida.

Yellow pine furnishes more than 37 per cent of all our lumber, and Douglas fir more than 13 per cent.

Washington supplies the most Douglas fir and western red cedar; Louisiana, the most yellow pine, tupelo, and cypress; Mississippi, the most cottonwood; Arkansas, the most hickory and red gum; Wisconsin, the most basswood, birch, and hemlock; Michigan, the most beech, elm, and maple; Minnesota, the most white pine; and West Virginia, the most oak, yellow poplar, and chestnut.

The people of the United States use in a normal year about 40 billion feet of lumber; 90,000,000 cords of firewood, 135,000,000 hewn railroad ties, 889,000,000 posts, 3,500,000 telegraph and telephone poles, 1,686,000,000 staves, 136,000,000 sets of heading, 353,000,000 barrel hoops, 3,300,000 cords of native pulp wood, 165,000,000 cubic feet of round mine timbers, and 1,250,000 cords of wood for distillation.

The yearly growth of wood in our forests has been estimated to average not more than 12 cubic feet per acre. We are taking out about 36 cubic feet per acre, and are therefore cutting the forests three times as fast as they grow.

Future Supply

Through the inevitable economic development of the country, the amount of land chiefly valuable for growing forests may be expected to shrink from its present extent of 550,000,000 acres (including farm woodlots) to approximately 450,000,000 acres, or, assuming a population of 150,000,000, to 300 acres for every 100 inhabitants.

To maintain our present per capita consumption of 260 cubic feet of wood, however, there would have to be 2,166 acres of forest for every 100 inhabitants, or more than seven times the probable future area.

The present forest area is 775 acres for every 100 inhabitants. It meets our own needs only because it still offers a supply of virgin timber, the accumulated capital of centuries, to supply the deficiency.

With increasing scarcity as this supply is drawn lower, economy in the use of woods will be forced. As wood becomes more expensive, growing it will become more profitable. Thus eventually a balance between production and consumption will be reached.

A supply of wood sufficient for our future needs will be the result of:

1. Reducing the per capita consumption.
2. Protecting the forests from fire.
3. Increasing the annual growth per acre through the practice of forestry.

By greater economy in the use of wood the per capita consumption could easily be reduced from the present figure of 260 cubic feet to 150 or even 100 cubic feet without hardship. We use only 50 per cent of the total volume of the tree and leave 50 per cent to be wasted.

Forest fires every year destroy, on an average, 12 billion board feet of timber. If the forests were protected there would be just this much more timber available. Protection from fire gives the forests a chance to grow.

The aim of forestry is to bring the forest up to its highest state of productiveness and keep it there. In the United States, where forestry is not practical except on Government and State lands, the estimated annual production, as stated before, is 12 cubic feet per acre. In Saxony, where forestry has been practiced for many years, the annual production is 93 cubic feet.

If our final forest area of 450,000,000 acres is made to yield an average of 50 cubic feet per acre, as it can by the practice of scientific methods, there will be enough wood for a per capita consumption of 150 cubic feet by 150,000,000 people.

THE SCIENTIFIC BASIS OF GEOGRAPHY.

The evolutionary theory, more than hinted at in Kant's "Physical Geography," has, since the writings of Charles Darwin, become the unifying principle in geography. The conception of the development of the plan of the earth from the first cooling of the surface of the planet throughout the long geological periods, the guiding power of environment on the circulation of water and of air, on the distribution of plants and animals, and finally on the movements of man, give to geography a philosophical dignity and a scientific completeness which it never previously possessed. The influence of environment on the organism may not be so potent as it was once believed to be, in the writings of Buckle, for instance, and certainly man, the ultimate term in the series, reacts upon and greatly modifies his environment; yet the fact that environment does influence all distributions is established beyond the possibility of a doubt.

ENCYCLOPAEDIA BRITANNICA.

THE FIRST BRANCH BANKS

One of the provisions of the new banking law of the United States which is expected to have an important bearing on export trade is that which allows national banks, with the permission of the Federal Reserve Board, to establish branches abroad. Before the adoption of this act, it was impossible for national banks to extend their operations outside of the confines of the United States. The nearest approach of branch banks possible would have been the establishment of independent banks abroad with the backing and under the control of stockholders of the national banks.

The first national bank to signify its intention of taking advantage of the provisions of the new law is the National City Bank, of New York. On June 30th, the board of directors authorized application be made to the Federal Reserve Board, as soon as that body be organized, for permission to establish branches in Buenos Aires and Rio de Janeiro. A week later the bank dispatched two of its responsible employees to inaugurate the work in these two South American cities, so that the branches may be in operation as soon as possible after the necessary permission has been granted by the Government.

In announcing this new policy shortly after the decision had been reached, Frank A. Vanderlip, president of the National City Bank said: "I wish to emphasize that we intend to render service to the American business men in any direction which it is legitimate for a bank to go. We will have experienced and competent men in the field who will give information as to credits, trade conditions, what the people of this or that locality buy and where they are buying it now."

It is anticipated that this departure in American banking practice will be followed by the opening of branches and agencies in other cities, and it is almost certain that other national banks will follow in the footsteps of the National City. Once the new system is in working order it will be possible to finance American shipments without the much-discussed intermediation of European banks. It will be possible also for American banks to afford the exporters of the United States that same assistance in the development of their trade which banks of certain European countries have been rendering their exporters for many years.—[*Commercial America.*]

AN ANNOUNCEMENT

The JOURNAL wishes to announce that the editor, Professor R. H. Whitbeck has been granted a leave of absence from his work at the University of Wisconsin until February first, 1915. From October to February he will be with the Historical Division of the Carnagie Institution at Washington, D. C. During this time Professor Lawrence Martin, the Associate Editor, will have the editorial management of the magazine.